

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of processing a stereo signal obtained from an encoder, which encoder encodes an N-channel audio signal into left and right signals ($L_0; R_0$) and spatial parameters (P), the method comprising:

[[-]] processing said left and right signals in order to provide processed signals ($L_{0W}; R_{0W}$), in which said processing is controlled in dependence of said spatial parameters (P).

2. (original) The method of claim 1, wherein said processing is controlled by a first parameter ($w_l; w_r$) for each of said left and right signals, said first parameter being dependent on the spatial parameters (P).

3. (original) The method of claim 2, wherein said first parameter ($w_l; w_r$) is a function of time and/or frequency.

4. (Currently Amended) The method of claim 12, wherein said processing comprises filtering at least one of said left and right signals with a transfer function which depends on the spatial parameters (P).

5. (Currently Amended) The method of claim 1, wherein said processing comprises:

[[-]] adding a first, second and third signal in order to obtain said processed channel signals (L_{0W} ; R_{0W}), in which the first signal includes the stereo signal modified by a first transfer function ($L_0 * H_A$; $R_0 * H_F$), the second signal includes the stereo signal of the same one channel modified by a second transfer function ($L_0 * H_B$; $R_0 * H_E$), and the third signal includes the stereo signal of the other channel modified by a third transfer function ($R_0 * H_D$; $L_0 * H_C$).

6. (original) The method of claim 5, wherein said second transfer function (H_B ; H_E) comprises a multiplication with said first parameter (w_1 ; w_2) followed by multiplication with a first filter function (H_1 ; H_4).

7. (original) The method of claim 5, wherein said first transfer function (H_A ; H_F) comprises a multiplication with a second parameter.

8. (original) The method of claim 5, wherein said first transfer function (H_A ; H_F) comprises a multiplication with a second parameter in which said first parameter is a function of said second parameter.

9. (Previously Presented) The method of claim 5, wherein said third transfer function ($H_1; H_D$) comprises a multiplication of the left or right signal ($L_0; R_0$) with said first parameter ($w_l; w_r$) followed by a second filter function ($H_2; H_3$).

10. (Previously Presented) The method of claim 6, wherein said filter functions (H_1, H_2, H_3, H_4) are time-invariant.

11. (Previously Presented) The method of claim 1, wherein said signals are described by the equation:

$$\begin{bmatrix} L_{ow} \\ R_{ow} \end{bmatrix} = H \begin{bmatrix} L_o \\ R_o \end{bmatrix}$$

in which the transfer function matrix (H) is a function of the spatial parameters (P).

12. (Currently Amended) The method of claim 11, wherein said transfer function matrix (H) is described by the equation:

$$H = \begin{bmatrix} (1-w_l)^a + (w_l)^a H_1 & (w_r)^a H_3 \\ (w_l)^a H_2 & (1-w_r)^a + (w_r)^a H_4 \end{bmatrix}$$

with wherein "a" being is a constant, and H_1, H_2, H_3, H_4 are filter functions.

13. (Previously Presented) The method of claim 11, wherein said filter functions (H_1, H_2, H_3, H_4) and parameters (w_l, w_r) are selected so that the transfer function matrix (H) is invertible.

14. (Previously Presented) A method of claim 1, wherein said spatial parameters (P) contain information describing signal levels of the N-channel signal.

15. (Currently Amended) A device for processing a stereo signal obtained from an encoder, which encoder encodes an N-channel audio signal into left and right signals ($L_0; R_0$) and spatial parameters (P), the device comprising:

[[[-]]] a post-processor ~~45~~ for post-processing said left and right signals in order to provide processed signals ($L_{0w}; R_{0w}$), in which said post-processing is controlled in dependence of said spatial parameters (P).

16. (Currently Amended) An encoder apparatus comprising:

[[[-]]] an encoder ~~42~~ for encoding an N-channel audio signal into left and right signals ($L_0; R_0$) and spatial parameters (P); and
[[[-]]] a device ~~45~~ according to claim 15_a for processing said left and right signals ($L_0; R_0$) in dependence of said spatial parameters (P).

17. (Previously Presented) A method for processing a stereo signal comprising left and right signals (L_{0W} ; R_{0W}), the method comprising inverting the processing in accordance with the method of claim 1.

18. (Previously Presented) A device (7) for processing a stereo signal comprising left and right signals (L_{0W} ; R_{0W}), the device comprising means for inverting the processing in accordance with the method of claim 1.

19. (Currently Amended) A decoder apparatus comprising:

[[[-]]] a device ~~(7)~~ according to claim 18 for processing a stereo signal comprising left and right signals (L_{0W} ; R_{0W}), and
[[[-]]] a decoder for decoding the processed stereo signals (L_0 ; R_0) into an N-channel audio signal.

20. (Currently Amended) An audio system ~~(4)~~ comprising:

an encoder apparatus having an encoder ~~(2)~~ for encoding an N-channel audio signal into left and right signals (L_0 ; R_0) and spatial parameters (P), and a device ~~(5)~~ for post-processing said left and right signals (L_0 ; R_0) in order to provide processed signals (L_{0W} ; R_{0W}), said post-processing being controlled in dependence on said spatial parameters (P); and
a decoder apparatus for decoding said processed signals (L_{0W} ; R_{0W}), said decoder apparatus having a device for processing a

stereo signal comprising left and right signals (L_0_W ; R_0_W), the device comprising means for inverting the post-processing performed in the encoder apparatus in order to provide stereo signals (L_0 ; R_0), and a decoder for decoding the stereo signals (L_0 ; R_0) into an N-channel audio signal.